

What is claimed is;

1. A line light source system comprising
a line light source,
an optical means which converges the light bundles
5 emitted from the line light source in a direction perpendicular
to the longitudinal direction of the line light source, and
a pinhole array which limits the angle of divergence of
the light bundles emitted from the line light source with
respect to the optical axis of the optical means in the
10 longitudinal direction of the line light source.

2. A line light source system as defined in Claim 1 in
which the line light source comprises a number linearly
arranged light emitting elements.

3. A line light source system as defined in Claim 2 in
15 which said light emitting element is an LED.

4. A line light source system as defined in Claim 1 which
is for projecting a reading light beam onto an electrostatic
recording medium which stores image information as an
electrostatic latent image upon exposure to light bearing
20 thereon image information and generates an electric current
according to the image information upon exposure to the reading
light.

5. A line light source system as defined in Claim 1 which
is for projecting a reading light beam onto a stimulable
25 phosphor sheet which stores the image information upon
exposure to light bearing thereon image information and emits

light according to the image information stored therein upon exposure to the reading light.

6. A line light source system comprising
a light emitting element array comprising a number of
5 linearly arranged light emitting elements and
a cylindrical lens which converges the divergent light
bundles emitted from the respective light emitting elements
only in a direction perpendicular to the direction in which
the light emitting elements are arranged so that the divergent
10 light bundles are converged on a line-like area on a surface
to be exposed to the light emitted from the line light source,
wherein the improvement comprises
an optical element which limits the angle of divergence
ϕ of light traveling toward the surface within the range
15 defined by formula $2 \times \cos^{-1} \left(1 - \frac{z}{D} \right) \geq \phi$

wherein D represents the distance between the front imaging point and the back focus of the cylindrical lens, and z represents a desired focal depth.

7. A line light source system as defined in Claim 6 in
20 which said light emitting element array is an LED array.

8. A line light source system as defined in Claim 6 which
is for projecting a reading light beam onto an electrostatic
recording medium which stores image information as an
electrostatic latent image upon exposure to light bearing
25 thereon image information and generates an electric current

according to the image information upon exposure to the reading light.

9. A line light source system as defined in Claim 6 which
is for projecting a reading light beam onto a stimulable
5 phosphor sheet which stores the image information upon
exposure to light bearing thereon image information and emits
light according to the image information stored therein upon
exposure to the reading light.

10. A line light source system as defined in Claim 6
10 in which said optical element is a pinhole array.

11. A line light source system as defined in Claim 6
in which said optical element is a refractive index profile
type lens array.

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